

Abstract of the Disclosure

COMPACTION QUALITY ASSURANCE BASED UPON QUANTIFYING
COMPACTOR INTERACTION WITH BASE MATERIAL INTERACTION

In most construction processes, some quality assurance compaction test must be performed on a base material before further construction can take place on or relative to the compacted base material. In order to avoid costly downtime associated with waiting for a quality assurance test to be performed, the present invention contemplates generating compaction quality assurance data using on-board generated compaction quality control data. The quality control compaction data is based upon quantifying a sinkage deformation interaction between the compactor and the base material. The interaction might include monitoring an effective roller radius of the compactor, or an amount of energy transferred or consumed when the compactor moves over the base material, or even measuring a rut depth caused by the compactor. The compaction quality assurance data can be indicative of a proof rolling test result, a walk out test result, a penetrometer test result, a base material density test result, or possibly even a compactor sinkage into the base material.